Cooking with Wheat: a Natural

When comparisons are made between grains, the following table reflects wheat's status:

In 100 g. of:	CALORIES Kcal	PROTEIN	THIAMINE B.V.	RIBOFLAVIN	NIACIN	IRON	CARBO-HYDRATE	FAT
Whole Wheat Berries	333	13 g.	0.55 mg.	0.12 mg.	4.3 mg.	--	71 g.	2 g.
Rice, Brown	360	8 g.	0.34 mg.	0.05 mg.	4.7 mg.	--	77 g.	2 g.
Yellow Corn (whole)	355	9 g.	0.38 mg.	0.11 mg.	1.9 mg.	--	74 g.	4 g.
Rice, Polished unenriched	363	7 g.	0.07 mg.	0.03 mg.	1.6 mg.	--	80 g.	1 g.
White Potato	76	2 g.	0.10 mg.	0.04 mg.	1.5 mg.	--	17 g.	0.1

Wheat is a natural source of protein, but should be "completed" by complementing it with milk or other protein sources. For example:

1 cup skim milk	complements	3/4 cup cooked wheat
3 tablespoons dry milk or ½ cup milk	complements	1 cup whole wheat flour
1/3 cup cheese	complements	3/4 cup cooked wheat
¼ cup soy flour or soybeans	complements	1 cup whole wheat flour or 3/4 cup cooked wheat

Serve: cereal with milk, peanut butter on whole wheat, prepare wheat dishes with milk, eggs or cheese, stir in dry milk. The result is a protein source your body uses as well as it does meat, dairy or egg proteins.

COOKING WITH WHEAT. . . A NATURAL

Introduction:

The wholesome nutrition of wheat has long been recognized in the wheat flour products we enjoy each day. That same goodness remains complete and intact when the wheat kernel is cooked as a grain and served as cereal, or in side dishes, main dishes, salads, soups and desserts. Wheat kernels or berries are exceptionally easy to prepare since they do not become sticky or gummy. Their flavor is rich and nut-like and with a high fiber content, they are very satisfying.

When comparisons are made between different grains, wheat maintains a high status. (See facing page) Wheat is low in fat, rich in slow burning carbohydrates, vegetable protein, essential B-vitamins and trace minerals. All play a vital role in digestion, an even energy supply, and utilization of fats, carbohydrates and other nutrients in the body's system.

GLOSSARY:

Wheat berry: the whole kernel of wheat, unpolished and not heat treated. The berries or kernels can be cooked whole for side or main dishes, cracked for cereals and breads, sprouted, or ground for whole wheat flour.

Bulgur wheat: a pre-cooked cracked wheat product made from whole kernel wheat commercially.

Cracked wheat: coarsely ground unpolished wheat kernels. Can be made in blender or home mill.

COOKING WHOLE KERNEL WHEAT:

NOTE: Use only untreated wheat, clean from the combine or commercially sold wheat berries.

Soaking wheat overnight in the water it is to be cooked in, cuts cooking time in half in all the following methods.

Salt may be used if desired, ¼ to ½ teaspoon salt per cup of wheat.

STOVE TOP:

Whole berries: 1 cup wheat to 3 cups water. Simmer covered 1 hour or 30 minutes if pre-soaked. Yields: 2½ cups wheat.

Cracked wheat: 1 cup cracked wheat to 2½ cups boiling water. Cover and simmer 15 to 20 minutes. Let stand 5 minutes. Yields: 2 2/3 cups

CROCK POT:

2 cups wheat berries 4 cups water

- Place wheat and water in crock pot. Cover and cook on low about 8 hours. Stir once during the first hour of cooking. Refrigerate and reheat just before serving or use in bread and casserole recipes. Yields: 5 cups

OVEN-COOKED:

1 cup wheat berries 2 cups water

- Preheat oven to 300°F. Boil in heavy saucepan 5 minutes. Remove from heat, cover and place in oven. Turn off oven heat. Leave undisturbed approximately 6 hours. Yields: 3 cups

STORING COOKED WHEAT:

Cooking a large amount of wheat at one time and freezing the cooked berries in small portions is a real time and energy saver. After cooking, just drain the cooked berries well and place ½ cup to 1 cup portions in freezer containers. Keeps up to 3 months. Quickly thaw kernels by running hot tap water over them in a colander.

Uses for the cooked wheat berries are as varied as your imagination allows. They can easily be substituted, once pre-soaked, for bulgur in most recipes or used in place of cooked rice in other recipes. When combined with other proteins such as meats, milk, nuts, eggs or cheese, the combination is a high protein dish or meal.

Following are some examples:

SIDE DISHES:

WHEAT-NUT PILAF

Excellent with chicken or beef!

1 cup pre-soaked wheat berries
3 tablespoons butter or margarine
2 cups beef or chicken broth or bouillon
2 medium carrots, shredded
½ teaspoon salt
½ cup chopped walnuts, pecans or almonds

- - In large ovenproof skillet or flameproof casserole, sauté berries in butter about 5 minutes to brown lightly, stirring occasionally. Stir in broth, carrots, and salt; bring to boil. Cover and bake in 350°F oven for 25 minutes or until broth is absorbed, stirring occasionally. Stir in choice of nuts.
Yields: 4 servings

- Sharon Patterson, Nutritionist, Kansas Wheat Commission

BAKED WHEAT AU GRATIN

Try with ham or fresh pork for a change!

1 tablespoon butter
3 tablespoons chopped onions
1 tablespoon flour
½ teaspoon salt
½ teaspoon dry mustard
1 cup milk
1 cup grated cheddar or American cheese
2 cups cooked wheat
Paprika

- - Melt butter; sauté onion until yellow. Remove from heat. Blend in flour, salt and mustard, stir in milk. Return to heat and cook until thickened, stirring constantly.

Add cheese, stir until melted. Stir in wheat. Pour into casserole and sprinkle with paprika. Cover and bake at 350°F for 30 minutes until lightly browned.

Yields: 4 to 6 servings

- Marilyn Glenn, CEHE, Kingman County

MAIN DISHES

WHEAT MEAT LOAF

1 cup cooked cracked or whole wheat berries
1 pound lean ground beef
½ pound sausage
1 cup tomato juice or sauce
2 eggs
1 teaspoon salt
½ teaspoon pepper
1 cup bread crumbs

GLAZE:

½ cup catsup
3 tablespoons molasses
1 teaspoon prepared mustard

- - Combine loaf ingredients well. Turn into an 8x9-inch pan, shape and spread glaze over top. Bake in slow oven (325°F) for 1 hour. Yields: 8 to 10 servings

- Kansas Association of Wheat Growers Wheatland Cookbook

WHEAT QUICHE

9-inch single pie crust, part whole wheat flour best
½ cup sliced fresh mushrooms
¼ cup chopped green pepper
¼ cup shredded carrot
1 tablespoon butter or margarine
4 beaten eggs
1 cup light cream
½ cup milk
½ teaspoon salt
½ teaspoon dried basil
½ cup shredded Monterey Jack cheese (6 ounces)
1 cup cooked wheat berries

- - Pre-cook pie crust at 450°F for 5 minutes. Sauté vegetables in butter just till tender. In a mixing bowl, stir together the beaten eggs, cream, milk, salt and dried basil.
Stir in the cooked vegetables and cheese.
Sprinkle cooked wheat berries in bottom of pastry shell. Pour in egg mixture. Bake at 375°F for 30 minutes or until knife inserted comes out clean. Cool on wire rack 5 minutes before serving.
Yields: 6 servings

- Better Homes and Gardens Cooking with Whole Grains

MAKING CRACKED WHEAT AT HOME

"We grind wheat in our blender. We put about 2 cups wheat in a glass quart jar (wheat might crack a plastic container), screw on the blender blades, and process at high speed about 4 minutes, or until all the wheat is ground up. Then we put it through a sifter or sieve. What goes through, we use in baking bread; what doesn't, we cook as breakfast cereal. We add raisins and eat the cereal with brown sugar. The fresh wheat flavor is wonderful!"
- Martha and Walter Dyck, Danvers, Illinois

SALADS

WALDORF WITH WHEAT

2 tablespoons mayonnaise or salad dressing
½ cup plain yogurt
¼ teaspoon vanilla
1/8 teaspoon salt
1 cup cooked wheat berries
½ cup thinly sliced celery
2 medium apples, cored and sliced
broken walnut pieces (optional)

- - Stir together the dressing, yogurt, vanilla and salt. Add the celery and wheat and chill, covered, until ready to serve. Stir in apples and nuts just before serving. Yields: 4 servings

GRAIN SPROUTS

- - Thoroughly wash 1/3 cup wheat berries. Place grain kernels in a bowl and cover with enough water (about 1 inch) for grain to swell; cover. Let stand overnight in a cool place. Drain and rinse grain kernels. Wash three 1-quart jars; place about ¼ cup of the soaked grain kernels in each jar. Cover tops of jars with two layers of cheesecloth or nylon netting. Fasten the cheesecloth on each jar with two rubber bands or a screw-top canning-jar lid band.
Place the jars on their sides in a warm, dark place (68°F to 75°F). Once a day rinse the sprouts by pouring lukewarm water into the jars. Swirl to moisten all the grain kernels, then pour off the water. In three or four days, the grains should sprout.
Once grains have sprouted, keep refrigerated till serving time. Serve in salads, sandwiches, soups, or breads.

PICNIC SALAD

2 cups cooked wheat
1 can (6 ounces) tuna or chicken, drained
½ cup celery, thinly sliced
½ cup chopped sweet pickles
½ teaspoon salt
2 chopped boiled eggs
1/8 teaspoon black pepper
¼ cup mayonnaise or salad dressing

- - Toss ingredients together. Chill 4 or more hours. Yields: 4 to 6 servings

WHEAT NUTS

- - Drain cooked wheat in sieve and place on paper toweling. Allow to air-dry for several hours. Preheat deep fat to 360°F to 375°F. Place a small amount of wheat in fat at a time as the moisture causes fat to boil and bubble. When kernels pop and rise to surface, drain on toweling. While still hot, season with salt, seasoned or bar-B-que salt, or favorite seasoning.

Wheat nuts are excellent alone or over a tossed salad!

"The ideal diet is that combination of food which, while imposing the least burden upon the body, supplies it with exactly sufficient material to meet its wants."

- - Schuster

DESSERTS

WHEAT BERRY PUDDING

3/4 cup cooked wheat berries
3/4 cup milk
3/4 cup seedless raisins
1 egg yolk
2 tablespoons honey
1 teaspoon vanilla
¼ teaspoon cinnamon
1/8 teaspoon salt
1 egg white

- - Combine cooked wheat, milk and raisins in a 2-quart saucepan. Blend together egg yolk, honey, vanilla, cinnamon and salt. Add to wheat mixture. Cook over medium heat, stirring constantly until mixture boils. Reduce heat and cook, stirring constantly until mixture is thick and creamy, about 5 minutes.
Remove from heat and cool pan 5 to 10 minutes in ice water. Beat egg white until stiff peaks form. Fold into wheat mixture. Spoon into dessert dishes and chill until serving. Yields: 4 servings

WHEAT FOLD-OVERS

Can be drizzled with icing for extra decoration!

½ cup cooked wheat kernels
2 tablespoons favorite jam
1½ cups whole wheat flour
1 teaspoon baking powder
¼ teaspoon salt
½ cup margarine or butter
½ cup brown sugar
1 egg
1 teaspoon vanilla

- - *Filling* - combine wheat and jam. Cover and refrigerate.
- - *Dough* - Stir together the dry ingredients in small bowl. Cream margarine or butter. Beat in sugar until fluffy. Add the egg and vanilla and beat well. Add dry ingredients and blend well. Cover and chill for 2 hours.
Roll out dough to 1/8-inch thickness and cut in 2½-inch circles. Place 1 teaspoon filling in center of each circle and fold in half. Seal edges with a fork. Bake on ungreased baking sheet at 375°F for 10 to 12 minutes. Cool on rack. Yields: 24

- Adapted from Cooking with Whole Grains

STORAGE OF WHEAT

When storing clean wheat (not bin-treated yet), two considerations are necessary.

Whole grain wheat contains the oil-rich germ that will become rancid if stored too long at room temperature or warmer. Ridding wheat of any insect infestation is also a primary concern.

To best keep smaller quantities of wheat for cooking or making whole wheat flour, store up to 5 months, tightly covered in a cool dry place. For longer storage, freeze or refrigerate wheat in moisture-and vapor-proof containers.

Metal containers are proven to be the most effective. You might select a garbage can with a secure lid. Store the container at 2x4-inch slats so air can circulate around the container. Do not store directly on cement, this may cause the containers to sweat. Metal should not be allowed to touch cement walls or floors as the cans will absorb moisture from the concrete causing rust which will ruin the container.

There are two methods to use for ridding wheat of any infestation. Dry ice and freezing are both effective in killing infestation inside and outside the kernel.

a. The *dry ice* method suggests placing a 3-ounce piece of dry ice in the bottom of the container. Pour the wheat on top of the dry ice and let the ice evaporate up through the wheat. This drives out the oxygen necessary for the insect to survive. Allow sufficient time for the dry ice to completely evaporate before sealing it. Feel the bottom of the container to see if it is still cool or has become warm. If it is warm, the dry ice has evaporated. Each 100 pounds of wheat will require 8 ounces of dry ice. The use of dry ice should not hinder the sprouting

process. However, the purchase of dry ice is not always possible.

b. The next best alternative is freezing the kernels. If kernels are frozen thoroughly, any existing infestation will be eliminated. To achieve a sanitary point, freezing should be done in small amounts. The suggested amount is one gallon of wheat kernels frozen for 5 to 6 days. This guarantees the penetration of cold air throughout the kernel. Be sure to check for moisture build-up before storing.

RESOURCES

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Fabulous Fiber, Sharon Patterson, 1983

Grain and Beans in the Pot, Marilyn S. Glenn, CEHE, Kingman County, 1978

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Wheatland Cookbook, Kansas Association of Wheat Growers, 1981

Nutritional Value of Bread, Paul Seib, Professor, Department of Grain Science and Industry, Kansas State University, 1980

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